

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1. (Currently amended) An expander device for isolating bus segments from one another in an I/O subsystem, the expander device coupling the bus segments for communication in the I/O subsystem, the expander device including:

a first I/O interface circuit configured to be coupled to a first bus segment, the first I/O interface circuit being adapted to interface input and output communication signals with the first bus segment;

a second I/O interface circuit configured to be coupled to a second bus segment and being adapted to interface the input and output communication signals with the second bus segment; and

an expander controller coupled to communicate the input and output communication signals between the first and second I/O interface circuits, the expander controller being arranged to control communication between the bus segments, the expander controller including a segment controller adapted to generate a first signal, wherein the segment controller provides the first signal to the first and second I/O interface circuits to disable output of the communication signals from the first and second I/O interface circuits to the first and second bus segments, the disabling of the output of the communication signals isolates the first and second bus segments from one another in an isolation mode so that the communication signals received on either bus segment are allowed but are not transmitted, the expander transitions from the isolation mode to a normal operating mode in order to repeat communication signals by receiving the

communication signals from one of the first bus segment or the second bus segment and outputting the communication signals to one of the second bus segment or the first segment.

Claim 2. (Cancelled)

Claim 3. (Original) The expander device as recited in claim 2, wherein the expander device is adapted to receive the communication signals from the first and second bus segments while in the isolation mode.

Claim 4. (Original) The expander device as recited in claim 3, wherein the segment controller generates the first signal in response to an isolation command received from the first bus segment.

Claim 5. (Original) The expander device as recited in claim 4, wherein the segment controller deasserts the first signal to exit from the isolation mode.

Claim 6. (Original) The expander device as recited in claim 5, wherein the segment controller deasserts the first signal when the second bus segment is in a bus free state.

Claim 7. (Original) The expander device as recited in claim 4, wherein the first I/O interface circuit includes a first input buffer and a first output buffer and wherein the second I/O interface circuit includes a second input buffer and a second input buffer.

Claim 8. (Original) The expander device as recited in claim 7, wherein the first and second input buffers are arranged to drive the communication signals for input to the expander device from the first and second bus segments, respectively, and wherein the first and second output buffers are arranged to drive the communication signals for output from the expander device to the first and second bus segments, respectively.

Claim 9. (Original) The expander device as recited in claim 8, wherein the first signal disables the first and second output buffers to disable the output of communication signals to the first and second bus segments, respectively.

Claim 10. (Original) The expander device as recited in claim 1, wherein the first and second bus segments are SCSI bus segments and wherein the expander controller is an SCSI controller.

Claim 11. (Currently amended) An SCSI expander for isolating bus segments in an SCSI I/O subsystem, the SCSI expander device coupling a first SCSI bus segment and a second SCSI bus segment in the SCSI I/O subsystem, the SCSI expander being

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configured to repeat communication signals by receiving the communication signals from one SCSI bus segment and outputting the communication signals to the other SCSI bus segment, the SCSI expander comprising:

a first SCSI I/O interface circuit adapted to interface communication signals with the first SCSI bus segment;

a second SCSI I/O interface circuit adapted to interface the communication signals with the second SCSI bus segment; and

an SCSI expander controller coupled to communicate the communication signals between the first and second SCSI I/O interface circuits, the SCSI expander controller being arranged to control communication between the first and second SCSI bus segments, the SCSI expander controller including a segment controller adapted to generate a first signal, wherein the segment controller provides the first signal to the first and second SCSI I/O interface circuits to disable output of the communication signals from the first and second SCSI I/O interface circuits to the first and second SCSI bus segments, wherein the disabling of the output of the communication signals isolates the first and second SCSI bus segments from one another in an isolation mode so that the communication signals received on either SCSI bus segment are allowed but not transmitted to the other SCSI bus segment, the expander transitions from the isolation mode to a normal operating mode in order to repeat communication signals by receiving the communication signals from one of the first SCSI bus segment or the second SCSI bus segment and outputting the communication signals to one of the second SCSI bus segment or the first SCSI segment.

Claim 12. (Original) The SCSI expander as recited in claim 11, wherein the SCSI expander is adapted to receive the communication signals from the first and second SCSI bus segments while in the isolation mode.

Claim 13. (Original) The SCSI expander as recited in claim 11, wherein the segment controller generates the first signal in response to an isolation command received from the first SCSI bus segment.

Claim 14. (Original) The SCSI expander as recited in claim 13, wherein the segment controller disables the first signal to exit from the isolation mode.

Claim 15. (Original) The SCSI expander as recited in claim 14, wherein the segment controller disables the first signal when the second SCSI bus segment is in a bus free state.

Claim 16. (Original) The SCSI expander as recited in claim 14, wherein the first SCSI I/O interface circuit includes a first input buffer and a first output buffer and wherein the second SCSI I/O interface circuit includes a second input buffer and a second input buffer.

Claim 17. (Original) The SCSI expander as recited in claim 16, wherein the first and second input buffers are arranged to drive the communication signals for input to the SCSI expander from the first and second SCSI bus segments, respectively, and wherein

the first and second output buffers are arranged to drive the communication signals for output from the SCSI expander to the first and second SCSI bus segments, respectively.

Claim 18. (Original) The SCSI expander as recited in claim 17, wherein the first signal disables the first and second output buffers to disable the output of communication signals to the first and second SCSI bus segments, respectively.

Claims 19-28 (Cancelled)